

larvae, and pupae. On April 19th, fully 85 per cent of the overwintering larval stage had pupated and were emerging as adults. In all probability there is but one generation a year, the adult appearing in early spring and depositing eggs in the young shoots in which the larvae develop until late fall and overwinter as full grown larvae.

"From present indications, it would appear that this joint-worm is a comparatively recent introduction into the Brooksville gardens, or else it has been there for some time and is slowly developing into a serious pest. It is recalled that in January, 1917, an inspector of the Florida Plant Board reported the finding of a borer in bamboo from Avery Island. Unfortunately, this larva was not preserved." The following observation was made by Dr. B. T. Galloway: "The adult fly always pierces the node through the sheaf in such a position that the egg may develop just above the node where the larval and pupal stages take place."

Type locality.—Brooksville, Florida.

Type.—Cat. No. 24371, U. S. N. M.

Host Plant.—*Phyllotachys bambusoides*.

Described from five female specimens reared by E. R. Sasser from young stems of bamboo, April 10, 1918, and three females reared by C. A. Bennett in April, 1919, from the same source.

Harmolita poaeola, new name.

Harmolita poae Phillips and Emery, Proc. U. S. Nat. Mus., vol. 55, 1919, p. 445 (not Schlechtendal 1891). See ante, p. 46.

EXPLANATION OF PLATE 7.

Figures prepared by Eleanor T. Armstrong under the writer's direction.

Figure 1. *Rhincopeltella eucalpti* Gahan, adult female.

1a. " " " hind tarsus of female.

1b. " " " antenna of female.

Figure 2. *Harmolita phyllotachitis* Gahan, adult female.

2a. " " " antenna of female.

NEW TIPULIDAE FROM BRITISH COLUMBIA (DIPTERA).

By C. B. D. GARRETT, *Cranbrook, B. C.*

The season of 1920 produced a large number of specimens many of which were new to the Kootenay List, however, I did not have the time this winter (1920-21) to work them further than to the genera, the following few notes being of more than passing interest were completed. On August 2, 1920, I was lucky enough to secure a perfect female of that very rare fly *Protoplasa vipo* O. S. I took it on the window of a pool room in the center of Cranbrook, B. C., doubtless attracted there by the light of the previous evening. This I think is the first Canadian record of this genus.

The next items are of three new species belonging to the *Dicranomyia whartoni* (Needham) group, all representing the least development of the medial vein in the tribe Limnobiini, an almost similar venation existing in the Limnobiinae tribe Antrochini, or species *Diotrepha mirabilis* O. S., which has but one media and three radii reaching the wing margin, but this tribe is largely separated by having sixteen antennal segments instead of fourteen as in the Limnobiini. Another somewhat similar venation is found in the tribe Anisomerini, species *Anisomera magacera* O. S., this having one media and four radii to the margin, and only six to ten antennal segments and tibial spurs, etc. Dr. Needham when describing *Dicranomyia whartoni* inferred that it may represent another distinct group, he however did not erect a new genus possibly due to having only a single female and single specimens may often be of the freak of nature when considering Tipulid venation. Before me are three other distinct species (in the first case a male and female, the second two males and a female, and third a single male) seemingly quite sufficient material to establish the constancy of this venation in particular species, I would thus propose the new generic name of *Alexandriaria* to contain these three new species and *Dicranomyia whartoni* of Needham. The latter should have the right to be the type of the genus but it does not quite fulfill the idea of the characters, namely the complete absence of that vein usually representing M3 or M3 + 4, in *whartoni*; this seems to be represented as a spot occurring near the wing margin situated on Cu¹ and I would therefore select *suffusca* as the genotype.

I take much pleasure in naming the proposed genus after the well known Tipulid expert Dr. C. P. Alexander, whose kindness to me in the past is much appreciated and most helpful. In a recent letter, without having examined the specimens, Dr. Alexander suggests that it may be only of subgeneric rank, but contrary to the usual male hypypogium of *Dicranomyia* which are always supposed to have a base of fleshy lobes, these have quite a distinct form, being all horny; thus I did not follow his suggestion. Whether subgenus or not they are at least distinctly separated from the general tangle of the two genera *Dicranomyia* and *Limnobia*, which at times seem impossible to separate distinctly.

Excepting where mentioned the types and paratypes are in the author's collection.

It will be noted that the type of *Dicranomyia whartoni*, the male paratype of *Alexandriaria intermedia* and the type of *A. kooteniensis* were all taken at lamplight, which would indicate a habit of night flying. The types of *suffusca* were taken about 2 to 3 P. M. when out duck hunting.

Alexandriaria, new genus.

Type.—*Alexandriaria suffusca*, new species.

This genus would contain the usual characters of *Dicranomyia* of Stephens, except that but one branch of the median vein reaches the margin of the wing and that there is no cell 1st M2.

In describing *D. whartoni* Dr. Needham mentioned that the antennal segments (tip) show a tendency to fuse; in *A. suffusca* n. sp. the right antenna has segments three and four apparently united, four being smaller than usual. This is not the case with the other new species which have all segments clear.

Alexandriaria suffusca, n. sp.

Male.—Length 5 mm.; wing 5 mm. Head brown, pale; occiput to vertex suffused; face and rostrum yellow brown; palpi gray black, first joint paler. Antennae dark brown, segment one slightly paler; thorax dorsum pale brown, with a broad median dark brown stripe from the collar to the suture and a short broad one on each side from the suture to near the tuberculate pits which are plainly visible; pleura and coxae yellow to whitish brown. Abdomen dorsally all dark brown, ventral segments 2 and 3 yellow brown shading to dark brown at the anus; hypopygium lighter, in part yellow brown; anal style and its base completely visible, not covered by the 9th sternite. Legs brown, tarsi dark. Wings broad, hyaline, veins yellowish to dark. Sc joining C at the origin of RS, RS leaving R at a broad angle somewhat curved; vein R at about the middle of cell 1st R becomes pale and colorless reaching C in this condition; cross vein R is also pale.

Female.—Length 5.5 mm.; wing 5 mm. Similar to the male but darker throughout; pleura blackish; no yellow on the abdomen ventrally; only coxae, face and rostrum yellow brown. Wing veins all heavy and strong, except the tip of R and cross vein R which are as in the male. Cu2 does not reach the wing margin, stopping abruptly and strongly near the wing margin, the other wing is torn in this place.

Holotype male, and *allotype* female taken at the same place and time on Oct. 9, 1920, Cranbrook, B. C., Alt. 2950 ft.

Alexandriaria intermedia, n. sp.

Male.—Length 5 mm.; wing 5 mm. Head rich yellow brown, occiput to vertex only a shade darker; face, rostrum and base of first palpi yellow brown, rest of palpi gray black; antennae dark brown, most of segment one yellow brown. Thorax, dorsum rich brown, a broad median dark brown stripe from collar to near tuberculate pits, the pits are not distinctly marked. Pleura yellowish. Abdomen all yellow brown parts infuscated. Hypopygium yellowish, base of anal style about half covered by the 9th sternite. Legs brown, tarsi darker. Wings, hyaline; Sc joins C slightly before the origin of RS; RS leaves R more acutely than in *suffusca* and less curved; tip of R and cross vein R where they join pale and colorless. Wings narrower than *suffusca* but less so than *kooteniensis*.

Paratype male differs from the type as follows: Thorax dorsum yellow brown, the broad median stripe from the collar to less than half way to the suture, the side stripes indicated by shade only; abdomen more yellow than the type.

Female.—Length 5 mm.; wing 5 mm. The female is as pale as the paratype male, but the thoracic stripes are more evident but less so than in the type. Hypopygium, tergite valves longer than the sternite. Segment one of the antennae is pale yellowish.

Described from: *Holotype* male 10 July 1920, Cranbrook, B. C., 2950 ft.

Allotype female 6 July 1920, Cranbrook, B. C., 2950 ft.

Paratype male 15 July 1920, Cranbrook, B. C., 2950 ft. Lamplight. In collection of Dr. C. P. Alexander.

Alexandriaria kooteniensis, n. sp.

Description of type male. Length 5 mm.; wing 5 mm. Color almost exactly as paratype of *intermedia* except dorsum of thorax which is paler but the dark stripes are more pronounced, the tuberculate pits are not evident. Wings hyaline, distinctly narrow; Sc joins C at the origin of RS; RS leaves R at an acute angle and straight. Vein R beyond origin of R⁴ + 5 and cross vein *r* colorless. Base of anal style almost completely covered by the 9th sternite.

Described from one male. (*Monotype*) 15 July 1920, Cranbrook, B. C., 2950 ft. Lamplight.

The males of the three species show other differences in the construction of the hypopygium. Antennal segments 3 and 4 vary in size. A wing of all male types have been mounted on slides.

By the descriptions it would seem the three species are very closely allied. The following comparisons will be helpful. In *suffusca*, RS up to branch R 4 + 5 is shorter than the last part of M to the wing margin and is shorter than Cu 1, from the basal deflection of Cu 1 to the wing margin. In *kooteniensis* the RS part is longer and in *intermedia* the RS part is equal to the M part but shorter than the Cu1 part. *Suffusca* has cell 1st R I deep; *intermedia* is medium depth, and *kooteniensis* distinctly narrow. This key will separate the species.

- 1. Sc joining C beyond origin of RS 2¹
- Sc joining C at or slightly before origin of RS 3

¹The figure illustrating *Dicranomyia whartoni* at the time of describing or on plate 27, p. 476, 23d report State Ento. New York, shows Sc joining C about one-third across the length of cell 1st R; the figure given by Dr. Alexander in Crane Flies of New York, Plate 31, fig. 12, shows Sc joining C almost above the origin of R, but beyond it.

2. Type female; lower valves obtuse at apex, upper valves short triangular at the base, apex prolonged and upcurved; tips of both pairs nearly on a level. (Type description of.) *whartoni* Needham.
3. Rs leaves R obtusely or at a curve 4
RS leaves R acutely or straight 5
4. RS shorter; wings broader; abdomen dark; October form; anal style completely visible in the male; sternite valves reach to the tip of the tergite in female. *suffusca*, n. sp.
RS longer; wings narrower; pale species; July form; anal style half covered by ninth sternite in male; sternite valves not reaching the tips of the tergites in the female. *intermedia*, n. sp.
5. RS long; wings narrow; cell 1st R I, distinctly narrow; base of anal style almost completely covered by the ninth sternite. *kooteniensis*, n. sp.
RS shorter; wings broader cell 1st R I, deeper; base of anal style about half covered by ninth sternite. *intermedia*, n. sp.

The last item is the description of a new *Chionea* allied to *noveboracensis* Alex. I wrote the description and sent it to Dr. Alexander asking him to be kind enough to compare it with the type female of *noveboracensis*, in which specimen it is most unfortunate that the antennae are missing, as the antennae of this new species are distinct from any known species of *Chionea*, because of the few number of segments, having only five whilst six is the accepted number for the genus. Again I take much pleasure in naming it after Dr. C. P. Alexander who has already done so much work on this genus, and at the same time I thank him for his kindness in comparing the notes.

Chionea alexandriana, n. sp.

Male and female.—Length about 5 mm., width about 1 mm.

Description of male and female. Antennae, five segments. Segment one long, cylindrical, with some dorsal, basal, black hairs. Segment two cylindrical, swelling to an apical club, a whorl of black hairs at $\frac{1}{3}$ and another at $\frac{2}{3}$ with more hairs and longer. Segment three short, about half the length of one or two, conical, with a few short hairs. Segments four and five short, cylindrical, four with two or three basal, five with three or four terminal, very long, golden hairs, longer than the whole five segments together. Segment one equals two in length, and one is longer than 3, 4, 5 together. Antennae, palpi, head, thorax, abdomen, black with slight gray pruinosity, in strong lights a brownish shade. Head with some coarse black hairs from occiput to vertex. Collar with a bunch of black hairs each side dorsally. Thorax with a scattered bunch of black hairs on the dorsum as long as the halteres, which are pale yellow. Abdomen with apparently seven complete segments in the female each with a few short scattered black hairs. (In strong sunlight all hairs shine brownish.) Legs with all femora very slightly incrassated, brownish black (in strong sunlight brown), tibia and tarsi the same, all with longitudinal rows of black hairs, bristly. Male hypopygium with base very solid, thick, somewhat conical to

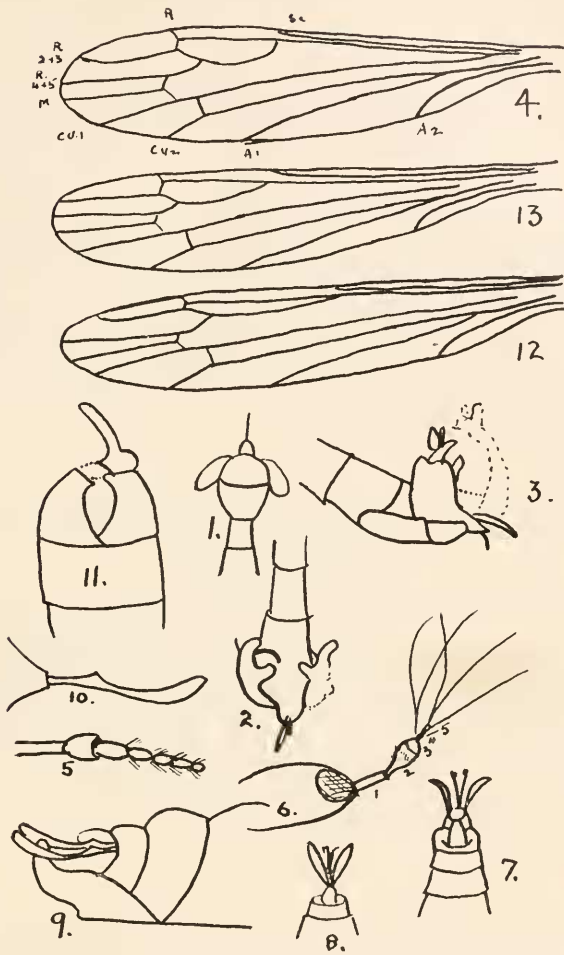


Fig. A.—1. *Alexandriaria suffusca*, ventral view, showing exposed sternite base; 2. same, left clasper from end and above; 3. same, clasper, lateral view; 4. same, wing of type male; 5. same, antennal segments 1 to 7; 6. *Chionea alexandriana*, antennae, male and female; 7. *Chionea alexandriana*, female hypopygium dorsal view; 8. same, ventral view; 9. same, lateral view; 10. same, tergite valve; 11. *Chionea alexandriana*, male, hypopygium, one clasper open; 12. *Alexandriaria kooteniensis*, wing of male type; 13. *Alexandriaria intermedia*, wing of male type. The illustrations are merely rough sketches to give some idea of the form. The wings are from a lantern slide sketch.

half way, color as abdomen, fleshy; below and inside with a prominent round point near the apex. Claspers, horny, subhyaline, bases thick and with an inside point which is modified on the outside. All with some black hairs. Female hypopygium subhyaline with four valves, tergal pair in lateral view flat, sword like; from base slightly up curved to the tips; base, thin, swelling from the second half diminishing to the tips and a bump dorsally at the first basal quarter.

Described from six specimens. *Holotype*, male, and *Allotype*, female, 22 Feb., 1921, Cranbrook, B. C., 3500 ft.

Four female paratypes. One data as types sent to Dr. C. P. Alexander. One data as types sent to U. S. Nat. Coll., Wash., D. C. One, 13 Feb., 1920, Cranbrook, B. C., taken a few hundred yards off the type spot, sent to the Canadian Nat. Coll., Ottawa. One taken in March or April, 1921, from the hills near Canal Flats, Kootenay Valley, taken by a trapper and given to me (damaged).

THE IDENTITY OF A HYMENOPTERUS PARASITE OF THE ALFALFA LEAF WEEVIL.

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At the time of the description of *Aenoplegimorpha phytonomi* the only specimen known to Viereck had been reared as a parasite of *Phytonomus postica* at Hoytville, Utah. Since that time additional specimens have been reared from the same host in Italy. This European record led me to try to identify it among the European species with the result that it was found to be identical with *Hemiteles micator* Gravenhorst.

The synonymy is therefore as follows:

Aenoplegimorpha micator (Gravenhorst).

Ichneumon micator Gravenhorst, Vergl. Uebers. Zool. Syst., 1807, 260.

Hemiteles micator Gravenhorst, Ichn. Eur., vol. 2, 1829, p. 832, ♀ only.

Aenoplegimorpha phytonomi Viereck, Proc. U. S. Nat. Mus., vol. 42, 1912, p. 147.

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